S/N: 09/808,945

3/5/2004

Docket No.: KAW-247-USAP

## AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

having a wavelength selectivity;

said lens being constituted by a substrate having one surface formed with a zone plate exhibiting a smaller converging action with respect to a wavelength  $\lambda_1$  of light and a greater converging action with respect to a wavelength  $\lambda_2$  of light, and the other surface formed with a zone plate exhibiting a smaller converging action with respect to said wavelength  $\lambda_2$  of light and a greater converging action with respect to said wavelength  $\lambda_1$  of light, said substrate being transparent to said wavelengths  $\lambda_1$  and  $\lambda_2$  of light, wherein each of said zone plates comprises concentric gratings each having a rectangular cross section.

- 2. (original) A diffraction type lens according to claim 1, wherein said diffraction type lens is shaped like a parallel plate.
- 3. (canceled)

S/N: 09/808,945

3/5/2004 Docket No.: KAW-247-USAP

4. (original) A diffraction type lens according to claim 1, wherein said one surface formed with the zone plate has a height  $h_1$  satisfying the following conditional expressions (1) and (2), and said the other surface formed with the zone plate has a height  $h_2$  satisfying the following conditional expressions (3) and (4):

$$h_1 = L_1 \lambda_1 / (n_1 - 1)$$
 (1)

$$h_1 = M_1 \lambda_2 / (n_2 - 1) + K_1 \lambda_2 / 2 (n_2 - 1)$$
 (2)

$$h_2 = L_2 \lambda_2 / (n_2 - 1)$$
 (3)

$$h_2 = M_2 \lambda_1 / (n_1 - 1) + K_2 \lambda_1 / 2 (n_1 - 1)$$
 (4)

where

 $\lambda_1$  and  $\lambda_2$  are the respective wavelengths of two incident light beams;

 $n_1$  is the refractive index of a grating portion with respect to the wavelength  $\lambda_1$  of light;

 $n_2$  is the refractive index of a grating portion with respect to the wavelength  $\lambda_2$  of light;

 $L_1$  and  $L_2$  are positive integers;

 $M_1$  is the maximum value among 0 and positive integers satisfying the conditional expression of  $h_1>M_1\lambda_2/\left(n_2-1\right)$ ;

 $M_2$  is the maximum value among 0 and positive integers satisfying the conditional expression of  $h_2>M_2\lambda_1/\left(n_1-1\right)$ ; and

 $K_1$  and  $K_2$  are values of at least 0.65 but not exceeding 1.35.

5. (previously presented) A diffraction type lens, disposed in a

S/N: 09/808,945

3/5/2004 Docket No.: KAW-247-USAP

luminous flux, having a wavelength selectivity;

said lens being constituted by a substrate having one surface formed with a zone plate exhibiting a smaller converging action with respect to a wavelength  $\lambda_1$  of light and a greater converging action with respect to a wavelength  $\lambda_2$  of light, and the other surface formed with a zone plate exhibiting a smaller converging action with respect to said wavelength  $\lambda_2$  of light and a greater converging action with respect to said wavelength  $\lambda_1$  of light, said substrate being transparent to said wavelengths  $\lambda_1$  and  $\lambda_2$  of light wherein each of said zone plates comprises concentric gratings each having a rectangular cross section, wherein said luminous flux incident on said diffraction type lens is substantially a parallel luminous flux.

D

6. (original) An optical pickup apparatus according to claim 5, wherein said luminous flux is converged at a position where two kinds of optical recording media having thickness values different from each other are disposed, said wavelength  $\lambda_1$  of light being used for recording or reproducing one optical recording medium, said wavelength  $\lambda_2$  of light being used for recording or reproducing the other optical recording medium.